

CA

15

Root-nodule bacteria in arctic regions. A. I. Krenyuk
A. I. Krenyuk and V. M. Migulina. Microbiology
(U. S. S. R.) 10, 61-72 (in English, 72-3) (1971). Some
logic tests showed no relation between arctic root-nodule
bacteria found on *Oxytropis nigrescens* and *Trifolium*
alpinum, and the root-nodule bacteria of common legumes.
Lemes

ALO SLA - METALLURGICAL LITERATURE CLASSIFICATION

KRISS, A. Z.

RT-1075 (Influence of microorganisms on the concrete of fluvial hydrotechnical structures. II.) O vliyanii mikroorganizmov na beton rechnykh hidrotehnicheskikh sooruzhenii. II. Mikrobiologiya, 10(3): 314-322, 1961.

KA

The nature of bacteriophage. I. Methods of purification of a phage. A. B. Kissin. *Microbiology* (U. S. S. R.) 10, 430-7 (in English, 438) (1941); cf. C. A. 34, 73277.—The bacteriophage of *B. coli* is adsorbed in ether but, on shaking breath counts, the phage with ether, some of the phage passes into the ether layer. There is no relation between pH and the titer of the phage in the ether layer. Chromatographing the ether ext. through a column of CaCl_2 and testing various parts of the column showed that the phage was adsorbed by the uppermost part. The phage was occasionally inactivated on filtering the ether ext. through paper. The bacteriophage of the typhoid

bacillus was used to work out a method for purification of phage. A titer of 10^{12} was obtained on meat-peptone broth. The lysed culture was filtered through a Helly filter and an askanite column. The askanite was activated by treating with 20% H_2SO_4 , boiling for 6 hrs.

standing overnight and washing to remove the SO_4^{2-} ions. Repeating this process increases the adsorbing power of askanite. For purification of 1 liter of bacteriophage suspension, a column 5 cm. high and 10 cm. in diam. was used at pH 4.20. On filtration through askanite the filtrate was clear, pH 2.70, did not lyse cells at pH 7, and the N content was reduced from 114.4 mg. per 1000 cc. The biuret reaction of the filtrate was strong. For removal of N compds., without disturbing the phage, the column was eluted with 500 cc. of KHSO_4 at pH 3.94. This was repeated 3 times. The first fraction gave a strongly pos. biuret reaction at pH 3.71. Total N was 77.35 mg. The 2nd fraction (pH 4.00) contained 10.51 mg. N and the 3rd (pH 4.92) 6.4 mg. N. The phage was absent in all fractions. For elution of the adsorbed, purified phage the askanite was placed in a flask with 300 cc. solid NaHCO_3 and 700 cc. water. The flask was shaken for 15 min., allowed to settle, decanted and the residue washed with 1 l. of water. The total amt. of eluate, contg. the phage at pH 8, was 2 liters. The N content was 6.72 mg. The titer of the purified phage was unchanged in comparison with the initial titer. —25 references. T. Leeser

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0

KRISS, A.E.

KRISS, A.E. & E. A. RUKINA

WT-1192 (Influence of microorganisms on concrete of the marine hydrotechnical structures.
III) O vliianii mikroorganizmov na beton morskikh gidrotekhnicheskikh sooruzhenii.III
MIKROBIOLOGIJA, 10(5), 1941.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0"

KRISS, A. YE.

"The Nature of Bacteriophage. V. Hypothesis on the Structure of Bacteriophage,
Mikrobiol., 17, 5, 340-349, 1943

KRISS, A. Ye

Inst. Microbiol., Acad. Sci., USSR. (-1944-)

"A Synthetic Medium for Preparation on the Polyvalent Dysenteric Bacteriophage."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 4 - 5, 1944.

KRISS, A. Ye., RYABTSEVA, Z. S., RUKINA, Ye. A., KIRIK, M. & GRIGOR'YEVA, T. A.

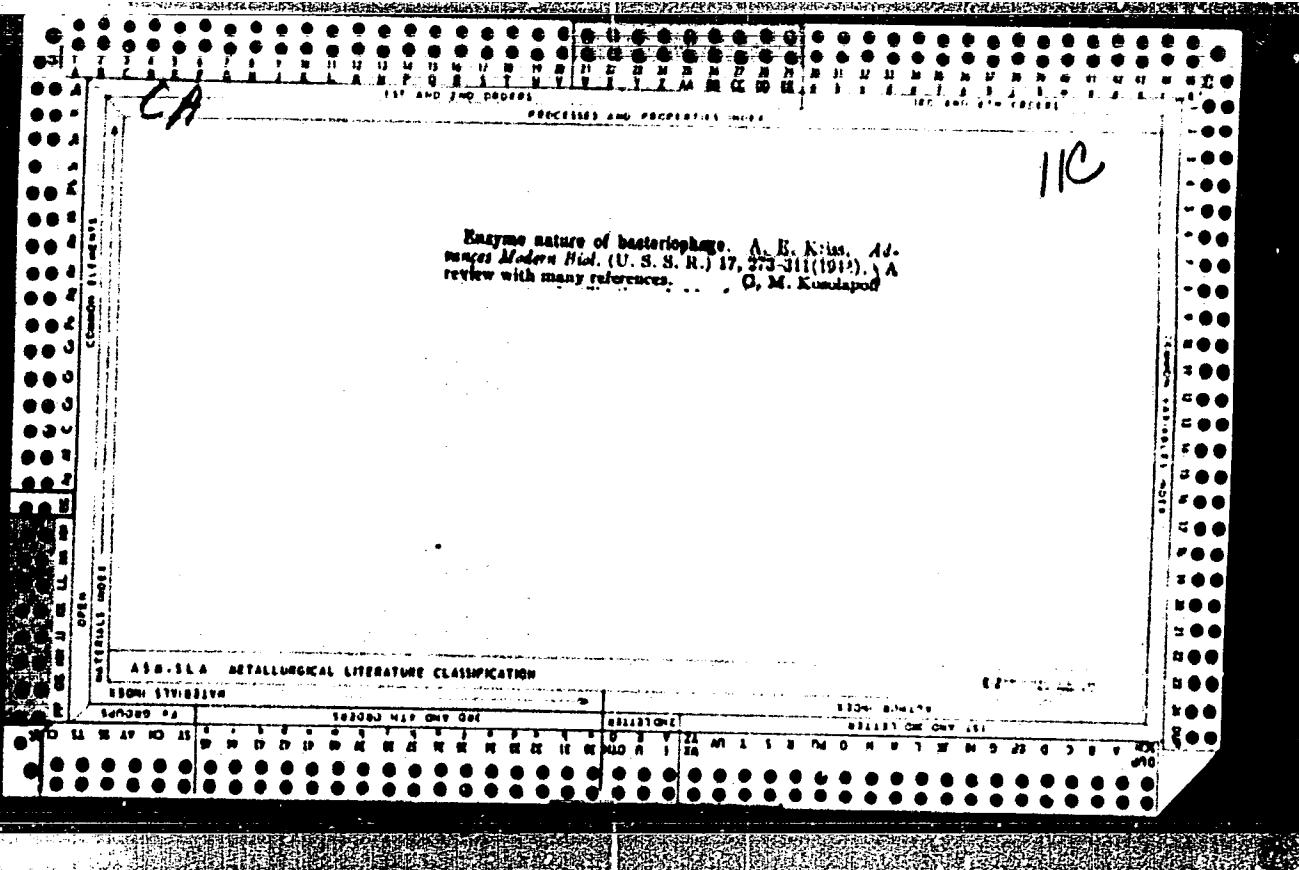
--"Fagin"--Complex Preparation for the Treatment of Refractory Infected Wounds."
SD; Byul. Eksper. Biol. i Med. 1944(9). (Quoted in Referaty 1945)

KRISS, A. Ye. and DILENKO, S.I.

"Chalk Absorbates of Bacteriophages as Therapeutic Preparations."
SO:Byul. Eksper. Biol. i Med. 1944 (10-11). (Quoted in Referaty 1945.)

KRISS, A. Ye.

"On Anabiosis in Permanently Frozen Ground a Thousand Years Old,"
SO: Mikrobiologija, 13, No.5, 1964.

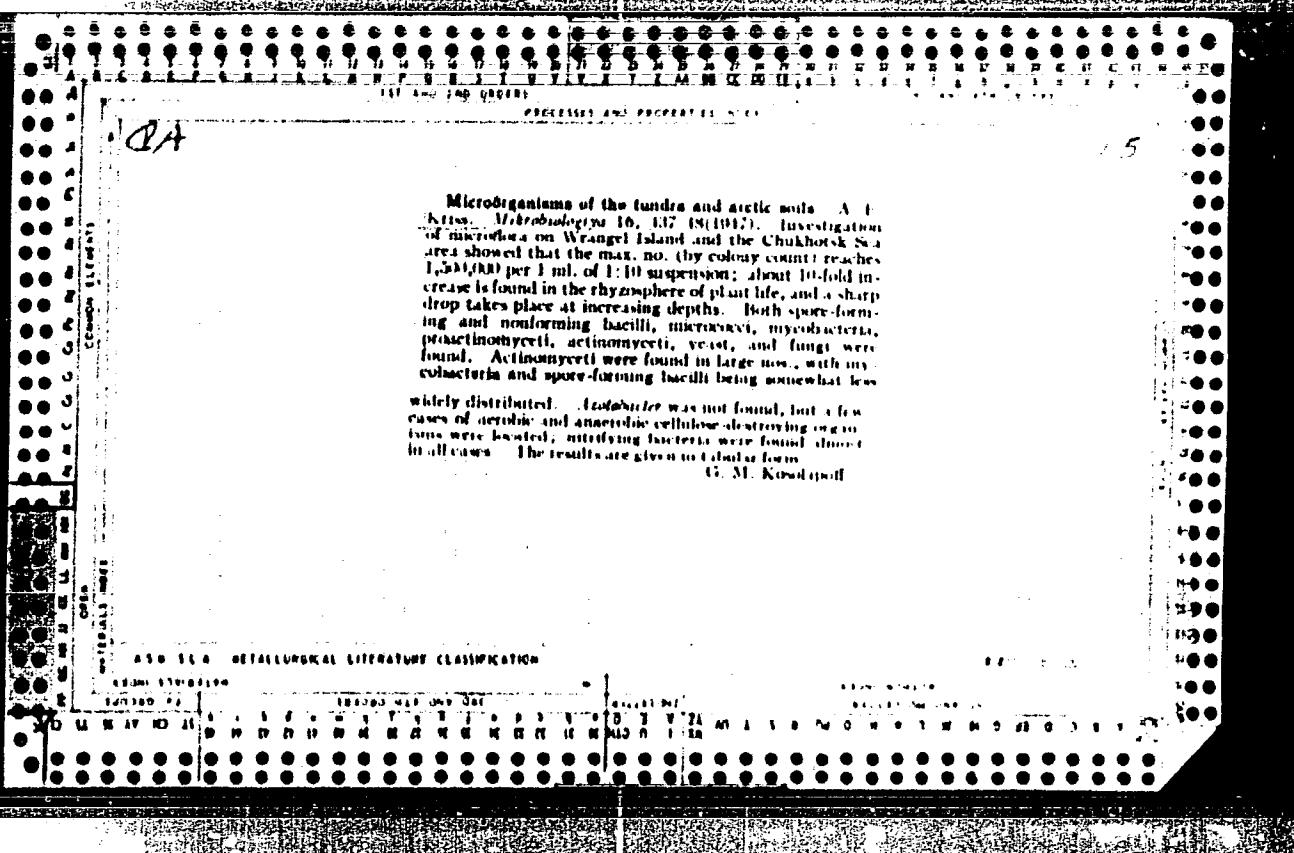


ISAYEV, B.M., KRISS, A. Ye. & RUKINA, Ye.A.

"Some observations on Bacterial Cytology using the Electron Microscope."
SO: Izvestia A.N. SSSR, Ser.Biol. 1945(6):678-687.

Dissertation: "Bacteriophage as a Two-Component System." Inst of Bio-chemistry imeni A. N. Bokh, Acad Sci USSR, 4 Jul 47.

SO: Vechernaya Moskva, Jul, 1947 (Project #17836)



KRISS, A. E.; RUKINA, E. A.

Bacteriophage in the Sea, Doklady Akademii Nauk S.S.S.R., 1947, Vol 57, pp
833-836.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific
Controlling Institute imeni Tarasevich, Moscow.

KRISS, A. Ye

21580 KRISS, A. Ye. Mikroorganizmy pochv i morey vostachnykh oblastey Sovetskoy Arktilid. Trudy Vtorogo Vsesoyuz. geogr. s'yezda, T. Ts M., 1948, s. 359-67

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

42175. KRISS, A. YE., BIRYUZOVA, V. I., ZOLKOVER, A. M. - Kapel'nyy dializ-metod prigotovleniya biologicheskikh preparatov dlya elektronnoy mikroskopii. Mikrobiologiya, 1948, VYP 6, c 484-87.

SO: Letopis' Zhurnal'nykh Statey Vol. 47, 1948

KRISS, A. YE.

35969 B.L. issachenko-osnovopolozhnik morskoy mikrobiologii
(1871-1948) priroda, 1948, No. 11, S. 86-89- bibliogi: 10
nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

Mikrobiol. v. 1, number 1, and V. A. Seregin et al.

"The Nature of Bacteriophage. IV. Bactericlytic Activity of Phage as an Index of the State of Its Corpuscles," Mikrobiol., 7, 4, 1948

KRISS, A. YE.

USSR/Medicine - Bacteriophage
Medicine - Bacteriolysis

Mar/Apr 1948

"On the nature of Bacteriophage: II. Refined Bacteriophage and Its Properties," A. Ye. Kriss, Ye. A Rukina, Inst of Microbiol, Acad Sci USSR, Moscow, 13 pp

"Mikrobiol" Vol XVII, No 2

Discusses fate of bacterial agents as result of the purification process: general nitrogen content in purified bacteriophage, the specificity and stability of purified bacteriophage, the conclusions based on results obtained. Submitted 30 Oct 1947.

PA 70T47

KRISS, A., YE.

FA 2/49T67

USSR/Medicine - Bacteriophage,

Nature of

Medicine - Microorganisms

May/Jun 43

"The Nature of Bacteriophage: III, The Role of Protective Colloids in the Preservation of the Stability of Bacteriophage During Denaturizing Actions," A. Ye. KRISS, Ye. A. RUDINA, Inst of Microbiol, Acad Sci USSR, Moscow

"Mikrobiol" Vol XVII, No 3

Reports series of experiments investigating the role of albuminous component of bacteriophage. Method adopted was to compare effects of

2/49T67 -

USSR/Medicine - Bacteriophage, May/Jun 43

Nature of (Contd)

denaturizing actions such as temperature and desiccation on bacteriophage purified to various degrees. Results are shown graphically and discussed. Submitted 12 Nov 47.

2/49T67

PA 44/49T67

KRISS A. YE.

User/Medicine - Bacteriophage, Jul/Aug 48

Nature of
Medicine - Bacteriophage, Action

"The Nature of a Bacteriophage," A. Ye. Kriss,
S. I. Didenko, Ye. A. Strel'tsova, Inst. of
Microbiol., Acad Sci USSR, Can State Sci Con-
trolling Inst imeni Tarasovich, Moscow, 10 pp

"Mikrobiologiya" Vol XVII, No 4

Quantitative titration tests reveal that a
decrease in lytic action is possible during
course of destruction of phagocytes. It is not
accompanied by any specific variations in

44/49T67

User/Medicine - Bacteriophage, Jul/Aug 48

Nature of (Contd)

reproduction of phagocytes. In final cultures
of dry bacteriophage, where a second growth
occurs, reproduction of bacteriophage reaches a
maximum titration. Gives two tables, six
microscopic photographs, and graphs of experi-
mental results. Submitted 24 Nov 47.

44/49T67

KRIS, A. YE.

PA 18/49T49

USSR/Medicine - Bacteriophage, — Sep/Oct 48

Nature of
Medicine - Microbiology

"The Nature of Bacteriophage: V. Hypothesis on the Structure of Bacteriophage," A. Ye. Kris, Inst of Microbiol, Acad Sci USSR, Moscow, 94 pp "Mikrobiologiya" Vol XVII, No 5

Paradoxical fact of the manifestation of decreased bacteriophage activity in suspensions of low concentration only is explained by hypothesis of spherical disposition of elementary corpuscles in bacteriophage units. Such a disposition would lead to uneven distribution

18/49T49

USSR/Medicine - Bacteriophage, (Contd) Sep/Oct 48
Nature of

or the denaturizing factor. Possible to "soften" denaturation by means of protective colloids, and occasionally even to neutralize completely effect of heating or desiccation. Peripheral elementary corpuscles must be regarded as a protective medium for particles in deeper complex corpuscle. Spherical or nearly spherical elementary corpuscles and clearly defined defensive attributes of albuminous component with relation to lithic group permits application of Talmud's theory of globin molecular structure to special relationship of albuminous and lithic components of bacteriophage. Submitted 12 May 48.

18/49T49

KRIGG, A. E.

Nov/Dec 48
Medicine - Microscopy
Medicine - Dialysis

VA 34/47
"Drop Dialysis - A Method of Preparing Biological Compounds for Electron Microscopy," A. E. Kriss, V. I. Birjuzov, A. M. Zolotov, Office of Electron Micros., Dept. of Biol. Sci., Acad. Sci. USSR, Moscow, 34 pp

"Mikrobiologiya," Vol. XVII, No. 6

34/49750
Describes method in detail. Based on principle of using supporting colloidal film, the "slide" in electron microscopy, as dialysis diaphragm. Method facilitates electron microscopy of antigenic stages

Nov/Dec 48

Medicine - Microscopy (Contd)

34/49750
Describes method in detail. Based on principle of using supporting colloidal film, the "slide" in electron microscopy, as dialysis diaphragm. Method facilitates electron microscopy of antigenic stages

KRISS, A. Ye. (Co-author)

See: RUKINA, Ye. A.

Kriss, A. Ye. and Rukina, Ye. A. "The microbiology of the Black Sea. Distribution of microorganisms in the waters of the Black Sea," Mikrobiologiya, 1949, Issue 2, p. 141-53, -
Bibliog: 12 items.

SO: U- 3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

KRISS, A. E.

23057 O proiskoshdenii serovodoroda v chernom more. Mikrobiologiya, 1949,
vyp. 4, C. 332-45. - Bibliogr: 17 nazv.

SO: LETOPIS' NO. 31, 1949

KRISS A.VE. I RUKINA YE. A.

29595

Vosstanovitel'nyye I Okislityel'nyye Protsyessy u Syerovodorodnoy oblasti Chrogo
morya. Mikrobiologiva, 1949, VYP 5.c. 402-15-Bibliogr:41S

SO: LETOPIS' NO.40

KRISS, A. YE.

PA 53/49165

URSG/Medicine - Marine Organisms
Medicine - Microbiology

Jun 49

"Role of Microorganisms in the Process of the Ac-
cumulation of Hydrogen Sulfide, Ammonia and Nit-
rogen at the Bottom of the Black Sea," A. YE.
KRISS, 12 pp

"Periodica" No 6

Carried out observations some 150 kilometers out
to sea at depths ranging up to 2,000 meters. Dis-
cusses (1) quantitative distribution of microor-
ganisms in the Black Sea, (2) formation of hydro-
gen sulfide in the Black Sea, (3) reasons for ac-
cumulation of ammonia and nitrogen on the sea

53/49265

URSG/Medicine - Marine Organisms (Contd) Jun 49

bottom, and (4) oxidizing processes in deep re-
gions of the Black Sea.

53/49165

USER/Medicine - Microbiology
Medicine - Marine Organisms

Mar/Apr 49

"Microbiology of the Black Sea," A. Ye. KRISS,
Ye. A. Rukina, Inst of Microbiol, Acad Sci USSR, 13 pp
USER, Sevastopol, Biol Sta, Acad Sci USSR

"Mikrobiologiya" Vol XVIII, No 2

Tests were conducted by microbiological stations located far offshore. So-called "sphere of plankton" was most populated zone by far. Also determined that there is a constant curve whereby microbes in "sphere of plankton" are carried to great depths, in some cases

44/49782

IC
to sea bottom. Noticed, however, that on the bottom dead plankton have formed a sort of carbonate zone in which many microbes died, while those which had anaerobic characteristics survived. Submitted 29 Dec 48.

PA 14/149782

KRISS A. Ye.

KRISS, A. E.; RUKINA, E. A.

Origin of Hydrogen Sulfide in the Black Sea (Institute of Microbiology, U.S.S.R. Academy of Sciences, Moscow; Sevastopol Biological Station, U.S.S.R. Academy of Sciences), Mikrobiologija, 1949, Vol 18, No. 4, pp 332-345.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific Controlling Institute imeni Tarasevich, Moscow.

KRISS, A. E.; RUKINA, E. A.

Oxidation-Reduction Reactions in the Hydrogen Sulfide Zone of the Black Sea,
(Institute of Microbiology, U.S.S.R. Academy of Sciences, Moscow; Sevastopol Biological
Station, U.S.S.R. Academy of Sciences; All-Union Scientific Research Institute of Marine
Fisheries and Oceanography, Moscow), Mikrobiologija, 1949, Vol 18, No. 5, pp 402-415.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific
Controlling Institute imeni Tarasevich, Moscow.

KRISS, A. E.

Role of Microorganisms in the Accumulation of Hydrogen Sulfide, Ammonia, and Nitrogen in the Depths of the Black Sea, Priroda, 1949, Vol 38, No. 6, pp 35-46.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific Controlling Institute imeni Tarasevich, Moscow.

CA

TC

Autolysis and lysis in bacterial cells. I. Electron microscopy of autolysis in bacterial cells. A. N. Kriss and V. I. Bryusova. Zhar. Obshch. Biol. (J. Gen. Biol.) 11, 381-90 (1950).—Electron microscopy of an atypical form of

Mucillus mycoides (from soil) showed autolytic sensitivity to gramicidin, penicillin, streptomycin, and bacteriophage. Autolytic degradation in cells killed by RIOH (90%), CHCl₃, or toluene showed no observable difference from autolysis in old cultures. Autolysis of sporogenic cells degrades the plasma (not the envelope) to simpler compds., leaving the cell optically empty (transparent to the electron beam).

Julian F. Smith

11e

cA

Autolysis and lysis of bacterial cells. II. Cytomorphologic changes in bacterial cells by action of gramicidin
A. B. Kurnik and V. I. Biryusova. *Zhur. Obshchey Biol.*
(J. Gen. Biol.) 11, 434-44 (1950); cf. C.A. 45, 47831.-
Culture tests, phase contrast microscopy, and electron
microscopy reveal 3 lethal cytologic effects of gramicidin:
autolysis, lysis, and coagulation. Characteristic autolytic
changes plainly distinguish killed from surviving cells under
the electron microscope. The cell wall is most resistant to
gramicidin; lethal changes in the plasma soon follow pene-
tration of the cell wall. Doses of gramicidin (in broth)
were 10, 25, 50, 125, and 250 μ /ml. At 115 and 250, in-
activation of the cell enzymes appears to inhibit further
action on the altered cell wall and coagulated plasma.
Julian F. Smith

1951

KRISS, A. E.; RUKINA, E. A.; TIKHONENKO, A. A.

Biomass of Microorganisms on the Bottom of the Sulphurhydrate Region of the Black Sea, (Institute of Microbiology and the Sevastopol Biological Station, U.S.S.R. Academy of Sciences), Doklady Akademii Nauk S.S.S.R., 1950, Vol 75, No. 3, pp 453-456.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific Controlling Institute imeni Tarasevich, Moscow.

1. KRISS, A. YE., BIRYUZCOVA, V. I.
2. USSR (600)
7. "Acceleration of the Processes of Decomposition of Bacterial Cells Under the Influence of Certain Substances", Priroda, No 5, 1951, pp 36-45.
9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

AFARIN, A. I.; KRISS, A. Ye.

The Method of Electron Microscopy in Biology, Vestnik Akademii Nauk S.S.R.,
1951, No. 6, pp 64-70.

Institute of Microbiology, U.S.S.R. Academy of Sciences, Central State Scientific
Controlling Institute imeni Tarasevich, Moscow.

1. KRISS, A. YE.
2. USSR (60)
7. "Book Review: M.N. Moysel', 'Functional Morphology of Yeast Organisms', Moscow-Leningrad, 1950", Sov. Kniga, No 7, 1951, pp 27-39.
9. Microbiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-131. Unclassified.

C. A.
1951

*Biological Chemistry
Biology*

Autolysis and lysis of bacterial cells. III. Formalin as a lytic agent. A. Ya. Kriss and V. I. Biryukova. Zhur. (Obshchaya) Biol. (USSR) 12, 211-24 (1951); cf. C.A. 43, 7641a. — Inactivation of *Bacillus mycoides* by HCHO (50 to 300 mM, i.p.m.) is compared with the effects of gramicidin, penicillin, streptomycin, C₁H₃, and toluene. These agents promote lysis by activating the lytic components of cells. Julian P. Smith

C.A
1951

Moskva, 14

Occurrence of toxic organic compounds in the Black Sea.
A. N. Klim, R. A. Rukina, and V. I. Birzurova (Microbiol.
1951, Acad. Sci., Moscow). *Microbiology* 20, 101-102
(1951).—Bacterial decomprn. of org. matter in Black Sea
mud is not inhibited by H₂S in the water. The decomprn.
products include NH₃, N, CO₂, H₂, CH₄, and carbonates. 26
references Julian F. Smith

KRISS, A. Ye.; RUKINA, Ye. A.; BIRYUZOVA, V. I.

"Microzonality in the Distribution of Heterotrophic Microorganisms in the Sea,"
Mikrobiologiya, Vol 20, No 3, 1951, pp 256-265.

Inst. of Microbiology, AS USSR.

Translation M-576, 29 Jun 55

OPARIN, A.I.; KRISS, A.Ye.

Method of electron microscopy in biology. Vest. Akad. nauk
SSSR 21 no.6:64-70 June 1951. (CLML 20:11)

1. Academician Oparin; Prof. Kriss. 2. Achievements of the
Laboratory of Electron Microscopy, Division of Biological
Sciences, Academy of Sciences USSR.

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0

KRISS, A., RUKINA, Ye. and NOVOZHILOVA, M.

"Distribution of Heterotrophic Bacteria in the Ocean Depts," Izv. AN SSR ser. Biol.,
5, 1952.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0"

1. KBISS, A. YE., RUKINA, YE. A.
2. SSSR (600)
4. Microorganisms
7. Microorganism in oceanic bottom deposits.
Izv. AN SSSR Ser. biol. No. 6, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

11c

CA

Distribution of yeasts in the sea. A. N. Kita, N. A. Kubina, and A. S. Tikhomirov. Zhar. Mikrobiol. 13,

1959, 42(1953).—Yeast cells were found in the Black Sea at depths down to about 5700 ft. Horizontal and vertical distribution varied with plankton and with content of dissolved gases, especially O₂ and H₂S. Colorless, black, and silvered yeasts were observed, among them *Rhodotorula rubra*, a black yeast was observed, among them *Rhodotorula rubra*, a black yeast was observed, among them *Torulopsis pulcherrima*, and *T. laurentii*. J. V. S.

KRISS, A. Ye. and RUKINA, Ye. A.

"Biological Mass of Microorganisms and the Rate of Their Multiplication in Ocean Depths," Zhur. Obshch. Biol., 13, No.5, pp 346-52, 1952

Translation M-687, 16 Aug 55

KRISS, A.Ye.

Bibliography of an article, "Formation of Crystals in Cultures of Psychrophile Bacteria" (Reported at the meeting of the Scientific Conference in the Institute of Microbiology of the Academy of Sciences of the USSR - 31 Jan 51).

4. KRISS, A.E. Mikroorganizmy tundrovых и поларно-пустынных почв Арктики. (Microorganisms of the tundras and polar deserts of the soils of the Arctic). SO: Mikrobiologiya, Vol. XXI, Sept-Oct. 1952; 540-547;

KRISS, A.Ye.

Microorganic life in ocean depth. Usp. sovrem. biol.
34 No.2:194-218 Sept-Oct 1952. (CIML 25:5)

1. Moscow.

KRISS, A., LEBEDEVA, M. and RUKINA, Ye.

"Distribution of Numbers and Biological Masses of Bacteria in the Open Sea with Increasing Distance from the Shore," DAN USSR, 76, No.3, 1952.

KRISS, A. Ye.

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USER/Biology (Microbiology) - Bacteri- 11 Sep 52
ophage

"The Structure of Bacteriophage Particles," A. Ye.
KRISS, A.S. Tikhonenko

"Dok Ak Nauk SSSR" Vol 86, No 2, pp 421-423

On the basis of electron-microscopic photographs
of *Bacillus mycoides* bacteriophage and *Bact.*
lactis aerogenes bacteriophage, conclude that the
tail of the bacteriophage particle consists of a
chain of little spheres (spirally wound sphere-
shaped protein macromols), and that the head is
similar in structure to the tail, except that the

chain of macromols is spirally wound, forming a
large sphere. Photographs included.

235T12

KRISS, A. E.; LEBEDEVA, M. N.; RUKINA, YE. A.

KRISS, A. E.; LEBEDEVA, M. N.; RUKINA, YE. A.

Microorganisms

Distribution of the number and density of microorganisms in the sea in relation to the distance from shore. Dokl. AN SSSR 86, no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 2 1953, Unclassified.

KRISS, A. Ye.

"Structure of Bacteriophage," Usp. Sovr. Biol., No.3 (6), 1953 pp 346-66

Translation, No. 446, 18 Aug 55

KRISS, A.Ye.

Utilization in direct count of membranous ultrafilters designed
for sanitary and bacteriologic analysis of water. Mikrobiologija,
Moskva 22 no.1:69-71 Jan-Feb 1953. (CIML 25:4)

1. Institute of Microbiology, Academy of Sciences USSR, Moscow.

Trans. - M-278, 22 Nov 55

KRISS, A. YE.

Nov/Dec 53

USSR/Medicine - Bacteriophage
"The Structure of Bacteriophage," A. Ye. Kriss,
Moscow

Vsp Sov Biol, Vol 36, No 3(6), pp 346-366

The author reviews theories and electron-microscopic investigations of the nature and structure of bacteriophages, and then gives a detailed account of his own observations. He analyzes the structure and reproduction process of bacteriophages, and concludes that they should not be considered bacterial parasites or viruses but rather biocatalysts of micro-organic origin. He cites many foreign works, but

273257

rely mainly on his own expts for his conclusions. The article is illustrated by photographs and charts.

1. KRISS, A. Ye. (Prof.)
2. USSR (600)
4. Microorganisms
7. Microorganisms and biological productivity of ponds, Priroda 42 No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. KRISS, A.Ye.; LEBEDEVA, M. N.
2. USSR (600)
4. Microorganisms - Black Sea
7. Vertical distribution of the number and density of microorganisms in the deep-sea regions of the Black Sea. Dokl. AN SSSR 89 No. 5, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KRISS, A.Ye.; TIKHONENKO, A.S.; OPARIN, A.I., akademik.

Effect of high pressure in uncoiling the spiral which forms the head of a bacteriophage. Dokl.AN SSSR 93 no.2:353-356 N '53. (MIRA 6:10)

1. Laboratoriya elektronnoy mikroskopii, Otdeleniye biologicheskikh nauk Akademii nauk SSSR (for Kriss and Tikhonenko). 2. Akademiya nauk SSSR (for Oparin).
(Bacteriophagy)

Translation M-221, 1 Mar 55'

KRIE, A.E.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Biological Chemistry

Purple sulfur bacteria in the hydrogen sulfide-containing depths of the Black Sea. A. E. Krie and B. A. Rubina (Inst. Mikrobiol., Acad. Sci. U.S.S.R., Moscow). Doklady Akad. Nauk S.S.R. 93, 1107-10 (1953). —A detailed description of specimens of purple S bacteria found in the H₂S-contg. depths of the Black Sea is given with illustrations. These form in their cultures not only red and orange pigments but also bacteriochlorophyll, whose absorption max. in MeOH is 778-70 mμ and 610-600 mμ. These failed to develop in the dark in various cultures, and it is suggested that in natural habitat the energy source might be radioactive in the sea depths since normal illumination sources are lacking. G. M. Kosolapoff.

KRISS, Anatoliy Yevseyevich, doktor biologicheskikh nauk, professor;
PRIVALENU, L.V., redaktor.

[Microorganisms and the biological productivity of bodies of
water] Mikroorganismy i biologicheskaya produktivnost' vodoemov.
Moskva, Izd-vo "Znanie," 1954. 23 p.(Vsesoiuznoe obshchestvo po
rasprostraneniiu politicheskikh i nauchnykh znanii. Ser. 3, no.32)
(MLRA 7:8)

(Fresh-water biology) (Marine biology)

KRISS, A.Yo.

"Microorganisms and the biological productivity of bodies of water."
Mikroorganizmy i Biologisheskaya Produktivnost Vodovemov, Series III, No 32, pp 3-24,
1954.

Translation-M-334, 13, Apr 1955.

USSR/Biology - Microbiology

Card 1/1 : Pub. 124 - 3/38

Authors : Kriss, A. E., Dr. of Biol. Sc.

Title : Basic problems of sea and ocean micro-biology

Periodical : Vest. AN SSSR 8, 22-34, Aug 1954

Abstract : The importance of sea micro-biology in the exploitation of productivity problems of sea and ocean waters, is explained. The problems involved in accurate identification of living and dead micro-organisms found in deep waters and on the bottoms of seas and oceans, are discussed. Tables; diagrams, graphs.

Institution :

Submitted :

Translation M-q z. 21 Jan 57 -

KRISS, A.E.; MARKIANOVICH, Ye.M.

Observations on the rate of multiplication of microorganism in sea water. Mikrobiologiya 23 no.5:551-560 8-0 '54. (MLRA 7:12)

1. Institut mikrobiologii Akademii nauk SSSR i Sevastopol'skaya biologicheskaya stantsiya Akademii nauk SSSR.
(BACTERIA,
in sea water, multiplication rate)
(WATER, bacteriology,
sea water bact. multiplication rate)

USSR/Biology - Yeast

FD-1416

Card 1/1 : Pub. 73 - 5/11

Author : Kriaz, A. Ye. and Novozhilova, M. I.

Title : Do yeast organisms inhabit the seas and oceans?

Periodical : Mikrobiologiya, 23, 6, 669-683, Nov-Dec 1954

Abstract : The incidence of *Torulopsis*, *Rhodotorula*, and *Sporobolomyces* yeast species and variants in the Black Sea, Sea of Okhotsk, and Pacific Ocean at various depths and at different distances from land masses was investigated in detail. Methods of sampling and culturing are described. The results of the investigations are presented on nine charts and three graphs. Ten Soviet and two non-Soviet references are cited.

Institution : Institute of Microbiology, Academy of Sciences USSR

Submitted : July 5, 1954

KRISS, A.Ye.; MARKIANOVICH, Ye.M.; RUKINA, Ye.A.

New materials on the species of micro-organisms in the Black
Sea. Trudy SBS 8:220-287 '54. (MIRA 11:1)
(Black Sea--Bacteria)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826510018-0"

KRISS, A.Ye.

"Microbiology of cellulose." A.A. Imshenetskii. Reviewed by A.B.Kriss.
Usp. sovr. biol. 37 no. 3:382-387 My-Je '54. (MLRA 7:9)
(BACTERIA, CELLULOSE--DECOMPOSING)

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826510018-0

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826510018-0"

USSR/Biology - Microbiology

Card : 1/1
Authors : Kriaz, A. E., Biryuzova, V. I., and Rukina, E. A.
Title : Distribution of micro-organisms in the water mass of the Central and Southern Caspian area and their mineralizing activity
Periodical : Dokl. AN SSSR, 97, Ed. 2, 329 - 332, July 1954
Abstract : In August-September 1952, the expedition of the All-Union Institute of Oceanography and Ocean Fish Life investigated the distribution of micro-organisms in the water mass of the Central and Southern ends of the Caspian Sea. Their findings are described in detail. Nine references. Table, drawings.
Institution : Acad. of Sc. USSR, Institute of Microbiology
Presented by : Academician V. N. Shaposhnikov, May 5, 1954

KRISS, A. E. Doctor of Biological Sciences

"Microbic population of the Ocean in the region of the North Pole"

Report given at jubilee held on June 20-21, 1955 in honor of 25th anniversary of foundation of Inst. of Microbiology, AS USSR

USSR/Biology - Microbiology

Card 1/1 Pub. 124 - 5/40

Authors : Kriess, A. E., Dr. of Biol. Sc.

Title : Microbiological investigations at the North Pole Region

Periodical : Vest. AN SSSR 1, 30-40, Jan 1955

Abstract : Data are presented on microbes of the northern Arctic Ocean and the importance of microorganisms in the cycles of substances existing in the polar basin. The microbiological data regarding the shores of the following seas surrounding the European-Asiatic mainland are tabulated: Barents, Kara, Laptev, East Siberian and Chukotsk Seas. The chemical contents of some sea species are listed. Tables; drawing.

Institution :

Submitted :

~~KRISS, A.Ye; KRASIL'NIKOV, N.A.; MEYSEL', M.N.~~

Morozova-Vodianitskaya, Nina Vasil'evna, 1893-1955. Mikrobiologiya
24 no.2:258 Mr-Ap '55. (MLRA 8:7)
(OBITUARIES,
Morozova-Vodianitskaya, Nina V.)

IMSHENETSKIY, A; KASHKIN, P.; KONOKOTINA, A.; KRASIL'NIKOV, N.; KRISS, A.;
KUDRYAVTSE, V.; LITVINOV, M.; MEYSEL', M.; RAUTENSHTETN, Ya.

Aleksandra Alekseevna Bachinskaia; obituary. Mikrobiologija 24
no.5:650-651 S-O '55. (MLRA 9:1)
(BACHINSKAIA, ALEKSANDRA ALEXEEVNA, 1878-1955)

KRISS, A.Ye.; TIKHOMENKO, A.S.

Effect of high pressures on corpuscles of various phages.
Mikrobiologija 24 no.6:677-680 N-D '55. (MLRA 9:4)

1. Laboratoriya elektronnoy mikroskopii pri Otделenii biologicheskikh
nauk AN SSSR, Moskva.
(BACTERIOPHAGE,
eff. of high pressure)

KRISS, A. Ye., doktor biologicheskikh nauk

New microbiological investigations in the central Arctic. Vest.
AN SSSR 25 no.9:31-34 S '55. (MLRA 8:12)
(Arctic regions--Microbiology)

KRISS, A.Ye.; LAMBIHA, V.A. (Moskva)

Rate of multiplication of microorganisms in the ocean in the
North Pole region. Usp.sovr. biol. 39 no.3:366-373 My-Je '55.
(MICROBIOLOGY,
(MLRA 8:11)

multiplication of microorganisms in ocean in North
Pole region)

(WATER,
mult. of microorganisms in ocean in North Pole region)

(COLD,
mult. of microorganism in ocean in North Pole region)

KRISS, A.Ye.

"Classification of yeasts". Usp.sevr.biol.40 no.2:259-263 8-0
'55. (MLRA 9:2)
(YEAST) (KUDRIAVTSEV, V.I.)

USSR/ Biology - Bacteriology

Card 1/1 Pub. 86 - 9/38

Authors : Kriss, A. Ye., Prof.

Title : Microorganisms in the deep-water regions of the Sea of Okhotsk and Pacific Ocean

Periodical : Priroda 44/7, 65 - 72, Jul 1955

Abstract : Some observations are presented on the subject of microorganisms in the ocean in general, followed by a discussion of the findings of Soviet scientists in 1951 and 1953, who used a scientifically equipped vessel described as a floating institute (the "Bityaz"). The researches comprised the obtaining of data as to the number of microorganisms at various depths down to 9,000 meters and experimentation to show the effect of various pressures on multiplication. Illustrations; map; table; graph.

Institution :

Submitted :

KRISS, A.E.

USSR/By: Microbiology

Card 1.1 Pub. 22 - 19/47

Authors : Kriss, A.E., and Biryuzova, V. I.

Title : Vertical distribution of microorganisms in the Kurile-Kamchatka depression of the Pacific Ocean

Periodical : Dok. AN SSSR 100/6, 1175-1178, Feb 21, 1955

Abstract : Scientific data are presented regarding the distribution of heterotrophic microorganisms at various depths of the Pacific Ocean along the Kurile-Kamchatka depression. Four tables referred to (1951-1952). Tables; drawings.

Institution : Academy of Sciences USSR, Institute of Microbiology

Presented by: Academician A. I. Oparin, December 21, 1954

KRISS, A. Ye.

USSR/ Biologs - Microbiology

Card #1 Pub. #2 - 47/51

Authors : Kriss, A. Ye.; Biryuzova, V. I.; Tikhonenko, A. S.; and Lambina, V. A.

Title : The microbe population in the North Pole region

Periodical : Dok. AN SSSR 101/1, 173-176, Mar 1, 1955

Abstract : Data are presented on the microbiological processes of mineralization of organic matter and a study of the microorganisms which carry on the processes. The possibility for the existence of unicellular life in the ice is discussed. The microbe population of the North Pole was investigated by the Microbiological Research Station attached to the Institute of Polar Studies (Soviet Arctic Research Station at the North Pole). First USSR reference (1955). Tables, drawings.

Translators : Acad. of Sc., USSR, Institute of Polar Studies.

Translator : Academician A. I. Sviridov, Inst. of Polar Stud.

KRISS, A.Ye.; ASSMAN, A.V.

Microorganisms as food for fishes. Dokl.AM SSSR 105 no.3:606-609
(MLRA 9:3)
N '55.

1. Institut mikrobiologii Akademii nauk SSSR. Predstavлено akademikom Ye.N. Pavlovskim.
(Fishes--Food) (Microorganisms)

KRISS, A., Inst. Oceanology, AS USSR

"The State and Problems of Marine Microbiology," a paper submitted at the International Union of Biological Sciences Symposium on Perspectives in Marine Biology, La Jolla, California, 24-31 Mar '56.

SO: E-982

KRISS, A.Ye. (Moskva)

Microbiology of the Caspian Sea. Usp.sovr.biol. 42 no.2:175-201
S-0 '56. (MIRA 9;11)
(CASPIAN SEA--MICRO-ORGANISMS)

Kriss, A.E.
USSR / Microbiology. General Microbiology.

F-1

Abs Jour : Ref Zhur - Biol., No 2, 1958, No 5158

Author : Kriss, A.E.

Inst : Not given

Title : The Density of Microbial Population and Biomass at Different
Depths of Seas and Oceans.

Orig Pub : Dokl. AN SSSR, 1956, III, No 6, 1356-1358

Abstract : A comparison was made of the quantity and biomass of micro-
organisms calculated by a direct method at similar depths of
the Black, Caspian and Okhotsk Seas, the Pacific and North
Arctic Oceans. In layers of active photosynthesis (0.50 m) o
of southern and median Caspian and Black Seas and the Paci-
fic Ocean, the bacterial density differs and ranges from 125
to 225 thousands per ml (biomass from 25 to 45 mg/m³). In

Card : 1/2

AUTHOR
TITLE
PERIODICAL

KRISS, A.E.
Regional Conference on Electron Microscopy.
(Ryegional'nyye Konfyeryentsii po elektronnoy mikroskopii - Russian)
Vestnik Akademii Nauk SSSR, 1957, Vol 27, Nr 3, pp 107-113, (U.S.S.R.)
Received 5/1957

PA - 2624

Reviewed 6/1957

ABSTRACT

At the International Conference on Electron Microscopy held in London in 1954 it was decided to hold regional conferences on the application of electron microscopy in various scientific fields. This conference was attended by more than 300 delegates from 22 European countries, among others also from the USSR as well as from the USA, Argentina, Japan, and the Union of South Africa. The first lecture was delivered by the American Scientist Hiller J. on "Applied electron microscopy, its development, its present trend, and prospects for the future". He as well as two thirds of all scientists present spoke mainly about the application of electron microscopy for biological purposes. The French Scientist Bernard V. spoke about "Electron Microscopy in connection with Cancer Research", the Swedish scientist Engström G. spoke about "Problems and Technologie of X-ray Analysis". About further 170 lectures were read in the 20 sections into which the conference was divided. The following lectures were delivered by members of the Soviet delegation. "Threadlike bacteriophagous particles in the initial stage of their formation in the cell", "The use of gelatine for biological preparations and ultrathin sections for electron microscopy", "Electron-microscopical research of lead-sulphur photoresistances". Besides, the

Card 1/2

Regional Conference on Electron Microscopy.

PA - 2624

following publications were suggested. "Some data for calculation and construction in electron microscopy", "Methods of etching for the investigation of aluminum alloys in electron microscopy". After the conference the Soviet delegates were able to visit Swedish scientific laboratories, the technical equipment of which made a great impression on them. They also visited an exhibition of electron microscopes at Stockholm. The present paper further contains a report on the "First Regional Conference on Electron Microscopy" for the countries of Asia held at Tokyo (23-27 October 1956). The conference was attended by scientists from Japan, China, Indonesia, Australia, as well as from the USSR, USA, and Western Germany.

ASSOCIATION
PRESENTED BY
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Card 2/2

KRISS, A.Ye.

Biological problems at the conferences on electron microscopy in Europe and in Asiatic and Oceanian countries. Usp. sovr. biol. 43 no.2:254-260 Mr-Ap '57. (MIRA 10:6)
(BIOLOGICAL RESEARCH) (ELECTRON MICROSCOPY--CONGRESSES)

USSR/Virology - Bacterial Viruses (Bacteriophages).

E-1

Abs Jour : Ref Zhur - Biol., No 12, 1958, 525-8

Author : Kriss, A.Ye., Tikhonenko, A.S.

Inst : ~~_____~~

Title : Structure of Bacteriophage Corpule and Its Lytic Activity

Orig Pub : Uspekhi sovrem. biol., 1957, 44, No 1, 121-126.

Abstract : Electron-photomicrographs of normal as well as deformed particles of bacteriophages of *Streptococcus lactis*, *Bacillus mycoides*, *Staphylococcus aureus* and actinophage of *Actinomyces globisporus* are presented, as well as photographs of location of phage particles in relation to asbestos threads. Based on the analysis of such photographs, the authors disagree with the commonly accepted viewpoint, in accordance with which the phage particles have an envelope and are adsorbed on the surface of sensitive cells by their protuberances, the contents of the head being transferred into the bacterial cell through

Card 1/2

USSR/Virology - Bacterial Viruses (Bacteriophages).

E-1

Abs Jour : Ref Zhur - Biol., No 12, 1958, 52568

the protuberance. There are 17 electron-photomicrographs.
Bibliography 11 references. -- Ya.I. Rautenshteyn

Card 2/2

- 1 -

Country : USSR
 Category : Microbiology - General Microbiology
 Abs. Jour : Ref Zhur - Biol, No.19, 1958, 85880
 Author : Kriss, A.Ye.; Mitekevich, I.N.
 Institut. : -
 Title : A New Class of Microorganisms Living in the
 Depths of the Oceans and Seas (Krasilnikoviae).
 Orig Pub. : Uspekhi Sovrem. Biol., 1957, Vol.44, No.2, 269-280
 Abstract : A new class of microorganisms has been discovered
 living in the depths of the Black Sea, the Pacific
 Ocean, and the Arctic Ocean. The organisms are
 found in growth glasses retained in sea water for
 a period of 6, 8, or 12 hours. These organisms
 are non-septate, non-branching threads 0.4-0.5
 microns in cross-sectional diameter, and either
 surrounded by a capsule or devoid of one. At one
 end of the thread there is a cluster of rounded
 bodies 0.5-2 microns in diameter. The number of
 rounded bodies per cluster in each thread may reach
 several dozen. The organisms are widely distribut-
 ed in the seas and oceans. They are found in con-
 Card: 1/2

Country :
 Category :
APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826510018-0
 Abs. Jour :

Author :
 Institut. :
 Title :
 Orig Pub. :
 Abstract : Considerable numbers at great depths. They cannot be
 obtained in culture. The authors believe that the
 threadlike-clusterlike microorganisms are so unique
 that they cannot be classified with any known cat-
 egories of lower organisms and represent an excep-
 tional group occupying a position between the pro-
 tozoans and the bacteria. In honor of N.A.Krasil'-
 nikov, the authors have given this new class the
 designation Krasilnikoviae. Thus far, two spe-
 cies have been isolated - K. capsulata and K. in-
 capsulata. - V.A.Lambina

Card: 2/2

KRIS, A.YE.

20-1-55/64

AUTHOR KRIS, A.YE.
TITLE Microbiological Research Work in the Central Arctic Zone During 1956.
PERIODICAL (Mikrobiologicheskiye issledovaniya v Tsentral'noy Arktike v 1956 godu-Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 114, Nr 1, pp 199-202 (U.S.S.R.)

ABSTRACT During 1954 and 1955, microbiological research work was carried out in that part of the area between Novaya Zemlya and the North Pole which is adjacent to the North Pole. During 1956, these investigations were carried on beyond the Pole, i.e. in the area between the Canadian Archipelago and Alaska. A part of the research stations was situated in the region of so-called 'inaccessibility'. Twenty-five research stations which controlled a considerable part of the Arctic Ocean collected research material on the character of the vertical distribution of the biomass of microorganisms, on the morphological composition at different horizons of the water mass. Five research stations dealt with depths to 1000 m below sea level, seven stations investigated depths from 1500 to 2000 m below sea level, and thirteen research stations were concerned with depths below 2000 m. The results of the investigations are compiled in two charts and they show that there exists in the Arctic Zone seasonal life (or seasonal development). This seasonal life or development is characterized by some activity during the summer and autumn months, whereas as soon as the dark months begin a depression takes place with regard to the biological productivity, and this in spite of the fact that in depths below 1000 m the summer and

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Microbiological Research Work in the Central Arctic Zone
During 1956.

20-155/64

winter temperatures are more or less the same. This depression is characterized by a sharp reduction in the number of those microorganisms which depend for their survival on the products of the disintegrating planktonic organisms.
(1 map, 2 charts).

ASSOCIATION Not Given.

PRESENTED BY

SUBMITTED

AVAILABLE Library of Congress

Card 2/2

KRISS, A. YE.

Quantitative and Morphological Data on Microbe Population in the Northwestern Part of the Pacific Water probes were taken to the depth of 9,000 meters. The Hansen bathometer was used for this purpose. Two tables show: 1) the quantity of microbes per 1 milliliter of water at various depths 2) mass \mathbf{f} of micro-organisms in milligrams per 1 cubic meter of water in various depth layers.

Oceanographic Research of the Northwestern Part of the Pacific Ocean, Moscow, Izd.-vo AN SSSR, 1958, 148 p. Its: Trudy, t.2.

This collection of articles reports the results of observations made in the Pacific by the Institute of Oceanology of the Academy of Sciences, USSR. In 1949, the Institute launched a systematic five-year program of scientific exploration of certain hydrographic peculiarities of the Soviet Pacific Area. The operations were carried out as a "Complex Oceanographic Expedition," using the Motorboat Vityaz' as its base. The Expedition worked in collaboration with the hydrographic Institute of the Soviet Navy (VMS), the Pacific Institute of Piscatology and Oceanography, and some 40 other institutes of the Academy of Sciences. Between 1949 and 1954, 18 trips were made, covering about 130,000 miles. Among the subjects of direct concern were: Meteorology, hydrology, oceanography, hydrochemistry, sedimentation, geography of the littoral, geology and contours of the sea bottom, fauna, plankton, microbiology, and gravimetry. Twenty-eight authors contributed to the collection which consists of 27 articles. There are: 6 tables, 23 diagrams, 3 illustrations (Photographs of the littoral), 4 maps. There are no references.

KRISS, A. Yo. and MITSKEVICH, I. N.

"A New Class of Microorganisms detected in the Depth of Seas and Oceans."

Report submitted for the International Congress for Microbiology, Stockholm, Sweden,
4-9 Aug 1958.

KRISS, A. Ye.

"Polimerity' in Structural Organization of Some Phages and Viruses"

paper submitted for presentation at Fourth Int'l Conference on Electron Microscopy, Berlin, GFR, 10-17 Sep 58.

Lab. Electron Microscopy, Acad. Sci. USSR.

C-3,800,829, ; 25 Jul 58.

KRISS, A. Ye

F

USSR / Microbiology. General Microbiology. Micro-
organisms of Water and Air.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

Author : KRISS, A. Ye
Inst : Institute of Microbiology
Title : The Microbe Population of the Ocean in the
Area of the North Pole

Orig Pub : Tr. in-ta Mikrobiol., AN SSSR, 1958, vyp 5,
186-198

Abstract : The problem of the existence of bacterial life
in the Central Arctic, in the depths of the
Arctic Ocean under the polar pack ice, away
from the direct influence of continental or
island run-offs, is being solved. Investiga-
tions were conducted on drifting scientific
stations at almost every depth. Their number

Card 1/3

USSR / Microbiology. General Microbiology. Micro-
organisms of Water and Air.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

fluctuated from 35 to several thousand cells per cm^l. In the vertical direction, a noticeably expressed micro- and macrozonality of distribution of their numbers was observed. The amount of heterotrophic bacteria in the surface layers of the ocean was considerably higher in July tests than in September tests. Heterotrophic microorganisms are basically represented by staff-form, non-sporogenous forms. Coccii, sporogenous bacteria and yeasts are also found. Data on general numerousness of microorganisms along an entire vertical of the ocean in the area of the North Pole in July and September are cited. The biomass of microbe cells in the upper layers of the ocean

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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826510018-
USSR / Microbiology. General Microbiology. Micro-
organisms of Water and Air.

F

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 23954

composes the units of ng/m³ of water, falling with the depth to hundredths and thousandths of ng/m³. The 24-hour increase of the biomass of microorganisms is 12-72%. In 1 g of natural silt, from 4 to 304 mil. of microbe cells were contained. -- V. A. Lambina

Card 3/3

NOT 55 A.Y.

KRISS, A.Ye. BIRYUZOVA, V.I., ABYZOV, S.S.

Micro-organisms multiplying under high pressures [with summary in English]. Izv.AN SSSR. Ser.biol.no.6:677-689 N-D '58 (MIRA 11:11)

1. Institut mikrobiologii AN SSSR.
(OCEAN BOTTOM--BACTERIA)
(SOIL MICRO-ORGANISMS)
(PRESSURE)

KRISS, A.Ye., LEBEDEVA, M.N., ABYZOV, S.S., MITSKEVICH, I.H.

Micro-organisms as indicators of hydrological phenomena in seas and
oceans [with summary in English]. Zhur. ob.biol. 19 no. 5:397-413
S-0 '58 (MIRA 11:10).

1. Institut mikrobiologii AN SSSR.
(SEA WATER--BACTERIOLOGY)

AUTHORS: Kriss, A. Ye., Tikhonenko, A. S.,
Biryuzova, V. I. 20-119-4-51/60

TITLE: Ultramicroscopic Formations Discovered in Sea and Ocean
Depths (Ul'tramikroskopicheskiye obrazovaniya, obnaruzhennyye
v morskikh i okeanicheskikh glubinakh)

PERIODICAL: Doklady Akademii Nauk, SSSR, 1958, Vol. 119, Nr 4, pp 809 -
- 811 (USSR)

ABSTRACT: Only electronic microscopy made it possible to observe direct-
ly albumin particles of a size of some dozens millimicrons or
even some dozens Ångströms. As in publications no experiments
of the kind, as mentioned in the title, could be found, the
authors performed this work. Samples from the Black Sea and
the Pacific Ocean(Kurilo-Kamchatskaya Basin), taken by batho-
meters from depths from 0 to 7500 m served for the investigation.
The method of the production of the preparation is described.
Salt crystals can be well distinguished under the electronic
microscopes. Beside crystals about 6 to 7 kinds of mostly round
ultramicroscopic formations, 15 - 1000 μ from various depths
(fig. 1) were found. Their concentration in the depths was con-
siderable. The nature of all these round formations, which have
a kind of structure and organization, is not yet clear. Some

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Ultramicroscopic Formations Discovered in Sea and Ocean Depths 2o-119-4-51/6o

of them are quite similar to the virus particles. Whether they are so-called saprophytic viri or structures of the coacervate type which form from organic substance dissolved in the sea water, is not known - in any case they cannot be regarded as an example for the primary formation of life from a lifeless material on the earth. For such an opinion all actual reasons are missing, as A. I. Oparin (reference 1o) correctly remarks. There are 1 figure, 16 references, 1o of which are Soviet.

ASSOCIATION: Laboratoriya elektronnoy mikroskopii pri Otdelenii biologicheskikh nauk Akademii nauk SSSR (Laboratory for Electronic Microscopy of the Department for Biological Sciences AS USSR)
PRESENTED: January 4, 1958, by A. I. Oparin, Member, Academy of Sciences AS USSR
SUBMITTED: January 2, 1958

Card 2/2

SOV/20-123-5-21/50

3(9)
AUTHORS: Kriss, A. Ye., Biryuzova, V. I., Lebedeva, A. N.TITLE: A Morphological Description of the Microbe Population of the Seas and Oceans (Morfologicheskaya kharakteristika mikrobnogo naseleniya morey i okeanov)PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 5, pp 845-848
(USSR)

ABSTRACT: The present paper systematically classifies observations made concerning the morphology of microorganisms detected in various depths of the Black Sea, the Caspian Sea, the north-western part of the Pacific, and the North Pole region. Each of these investigated regions is located at a sufficient distance from the next shore. A table gives the depth distribution of coccoid, rod-shaped, thread-shaped species and also of species of unusual shapes in the above-mentioned seas and oceans. Some of the microorganisms of unusual morphology are shown in a figure. Some of these microorganisms live only in relatively small regions of the sea. The microbial cells of unusual morphology (with the exception of the fragmentating threads) do not grow under laboratory conditions. The detection of microbes of unusual morphology is very interesting.

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